

Investigation of «cholesterol + model of biological membrane» complex by NMR spectroscopy

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Abstract

On the basis of the nuclear magnetic resonance (NMR) experiments it was established that molecules of sodium dodecyl sulfate can form micelles in dimethyl sulfoxide solution. The nuclear Overhauser effect between OH-group of cholesterol and "tail" groups of sodium dodecyl sulfate hydrophobic part was observed in 1D selective NOESY experiment. This observation corresponds to close spatial arrangement of these parts of different molecules and the presence of a complex between cholesterol and sodium dodecyl sulfate micelles.

Keywords

Cholesterol, Micelles, Nuclear magnetic resonance spectroscopy, Nuclear overhauser effect, Sodium dodecyl sulfate